Remarks

Claims 1, 10, 15, 16, 19, 21, 23, 26, 37, 38-41, 44-47, 49-62, 64, 65, 67-73, and 75-87 have been cancelled without prejudice. Claims 6, 42, 43, 48, 63, 66, 74, and 88-100 are pending. Claims 48, 66, and 74 have been amended to incorporate the independent claims from which they depend and not for reasons related to patentability. Applicants respectfully request reconsideration and entry of this Amendment.

Applicant submits that the cancellation of claims 16, 82 and 86, renders moot the rejection thereof under 35 U.S.C. § 112, second paragraph.

Claims 42, 43, and 74 under 35 U.S.C. § 103 over WO 96/25902 to Werenicz et al. (Werenicz) in view of Extrusion Coating & Laminating by Mainstone (Mainstone).

Werenicz discloses a noncontact coating method for coating a thermoplastic composition on a substrate. Werenicz specifically discloses porous substrates such as textiles. Werenicz discloses that slot nozzle coating devices can be used to practice the method disclosed therein. The methods of the Examples of Werenicz employ a slot nozzle coating device. Werenicz also discloses that compositions useful for traditional extrusion die coating are typically not suitable uncompounded for the coating method disclosed therein. Werenicz explains that such commercially available neat resins such as polypropylene and polyethylene do not have a sufficiently low enough complex viscosity at low temperatures, preferably less than 160°C, to be coated in the manner disclosed therein.

Mainstone discusses extrusion coating and laminating using thermoplastic polymers. Mainstone discloses that polymers commonly employed are polyethylene, polypropylene, polyester and nylon (Mainstone, page 195, column 3). Mainstone also mentions ethylene vinyl acetate copolymer (Id.). Mainstone indicates that typical polymer melt temperatures range from 450°F to 630°F (Id. at page 196, column 1). Mainstone further explains that the function of an extruder is to receive solid pellets of polymer and convey, melt and mix the material to produce a homogenous melt at the discharge end (Id.)

To establish a prima facie case of obviousness based upon a proposed combination of references there must be a teaching, suggestion or motivation in the prior

art for making the proposed combination. See M.P.E.P. 2142; Fromson v. Anitec Printing Plates, Inc., 132 F.3d 1437 (Fed. Cir. 1997); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1352, (Fed. Cir. 1998). The suggestion or motivation to make the claimed combination must be found in the prior art and must not be based on Applicants' disclosure. See M.P.E.P. 2142. In addition, it is well established that "the discovery of a problem is often an essential element in an invention correcting such a problem; and though the problem once realized may be solved by the use of old and known elements, this does not necessarily negative invention." In re Shaffer, 43 C.C.P.A. 758, 763, 229 F.2d 476 (1956), *citing* In re Hamilton, 20 C.C.P.A. 987, 64 F.2d 141 (1933).

Claim 42 is directed to a method of coating a substrate that includes releasing a hot melt adhesive that has been thermally made flowable from a coating device in the form of a substantially continuous film without contact between the coating device and a substrate, and contacting the surface of a substrate that includes a substantially nonporous moving web with the continuous film to form a coated substrate having a continuous coating having an area weight less than about 30 g/m^2, the coated substrate being essentially free of entrapped air between the coating and the substrate. Applicant recognized that a problem occurred when trying to coat a thin coating of hot melt adhesive onto a nonporous substrate using a noncontact coating method. This problem was the presence of air bubbles entrapped between the coating and the nonporous substrate. To overcome this problem, Applicant positioned a nip roller near or at the point of contact between the film and the nonporous substrate to be coated. This combination represents a solution to an otherwise unknown problem and produces a new result, namely a noncontact method of coating a hot melt adhesive composition where the method produces a nonporous substrate coated with a thin film that is free of entrapped air bubbles between the film and the nonporous substrate.

Werenicz does not teach or suggest that when coating a nonporous substrate air bubbles can become trapped between the coating and the substrate. The method of Werenicz also does not inherently entrap air bubbles between the Werenicz film and the porous substrate of Werenicz because all of the Examples of Werenicz are coated on porous substrates. Because the substrates used in the examples of Werenicz are porous, any air present between the substrate and the film would be expelled through the porous

substrate. Thus, nothing in Werenicz suggests the problem with which Applicant was faced, i.e., entrapped air between the coating and the substrate.

Mainstone is directed to extruding pure polymer. Nothing in Mainstone teaches or suggests that extrusion coating methods and slot nozzle coating methods are suitable substitutes for each other. In particular, there is no indication in Mainstone that the extrusion of neat polymer at temperatures of 232°C to 332°C at some unknown coating thickness has any relevance to coating thermoplastic compositions having the rheological properties set forth in Werenicz at the application temperatures disclosed by Werenicz. Moreover, Werenicz differentiates his method from traditional extrusion die coating methods. Thus, the skilled artisan familiar with the coating method of Werenicz would have no reason to look to the extrusion coating reference of Mainstone.

Mainstone is further deficient in that nothing in Mainstone teaches or suggests that air bubbles will become entrapped between a coating and a nonporous substrate during a noncontact coating method. Thus, the skilled artisan would not think to modify the coating method of Werenicz so as to produce a coated nonporous substrate that is free of air bubbles entrapped between the coating and the substrate. Applicant submits, therefore that the rejection of claim 42 under 35 U.S.C. § 103 over Werenicz in view of Mainstone is unwarranted and request that it be withdrawn.

Claim 43 depends from claim 42 and is distinguishable under 35 U.S.C. § 103 over Werenicz in view of Mainstone for at least the same reasons set forth above in distinguishing claim 42.

Regarding the rejection of claim 74, claim 74 is directed to a method of coating that includes a) releasing a hot melt adhesive composition that has been thermally made flowable from a coating device in the form of a continuous film without contact between the coating device and a substrate, and b) contacting a substantially nonporous substrate with the continuous film to form a coated substrate, the method further including c) simultaneously contacting the substrate with the continuous film and nipping the continuous film and the substrate between a first roller and a second roller. Werenicz does not teach simultaneously contacting a substrate with a continuous film and nipping the continuous film and the substrate between a first roller and a second roller.

Mainstone also does not teach or suggest simultaneously contacting a substrate with the continuous film and nipping the continuous film and the substrate between a first roller and a second roller. Thus, the proposed combination of Werenicz and Mainstone lacks a required element of claim 74. Applicants submit, therefore, that the rejection of claim 74 under 35 U.S.C. § 103 over Werenicz in view of Mainstone is unwarranted, and request that it be withdrawn.

Applicant submits that the cancellation of claims 38-41, 51, and 73 renders moot the rejection of claims 38-41, 51, and 73 under 35 U.S.C. § 103 over Werenicz in view of Mainstone and further in view of U.S. 3,402,086 (Smith).

Claims 48 and 66 stand rejected under 35 U.S.C. § 103 over Werenicz in view of Mainstone and further in view of WO 96/40480 (Enlow).

Claim 48 is dependent upon claim 42. Enlow does not cure the deficiencies of Werenicz and Mainstone as set forth above in distinguishing claim 42. Thus, claim 48 is distinguishable over the proposed combination of Werenicz and Mainstone for at least the reasons set forth above in distinguishing claim 42. The rejection of claim 48 is further deficient for at least the following additional reasons.

Claim 48 is directed to the coating method of claim 42 and further includes nipping the coated substrate between a first roller and a second roller and then contacting the coating of the nipped substrate with a second substrate. It is undisputed that neither Werenicz nor Mainstone teach such a method.

Enlow does not cure the deficiencies of Werenicz and Mainstone. Enlow discloses simultaneously dispensing a composition into a nip formed by two sheets passing over two rollers. Thus, Enlow discloses dispensing a composition and simultaneously nipping the composition between two substrates. Enlow does not teach subsequently contacting the coating of a nipped coated substrate with a second substrate. The proposed combination of Werenicz, Mainstone and Enlow thus lacks a required element of claim 48. Accordingly, a prima facie case of obviousness has not been established. Applicant submits, therefore, that the rejection of claim 48 under 35 U.S.C. § 103 over Werenicz, in view of Mainstone and further in view of Enlow cannot stand and requests that it be withdrawn. If this rejection is maintained, Applicants respectfully request that the Examiner provide further clarification as to the basis of and support for

the rejection by citing the passage, by page and line number, in the Enlow specification that substantiates the rejection.

Claim 66 is distinguishable under 35 U.S.C. § 103 over Werenicz, in view of Mainstone and further in view of Enlow for at least the reasons set forth above in distinguishing claim 48.

Claims 44, 63, and 88-100 stand rejected under 35 U.S.C. § 103 over Werenicz, in view of Mainstone and further in view of U.S. 5,747,107 (Bayer).

Claim 88 is directed to a method of coating that includes releasing a hot melt adhesive composition that has been thermally made flowable from a coating device in the form of a continuous film without contact between the coating device and a substrate, contacting a first roller with the continuous film, and transferring the continuous film from the first roller to a substrate.

It is undisputed that neither Werenicz nor Mainstone teach a noncontact coating method that includes contacting a first roller with a continuous film and then transferring the continuous film from the roller to a substrate.

Bayer discloses a method that employs an extruder to force a pressure sensitive hot melt adhesive composition out of a die orifice having an opening of about 1 in x 0.2 in onto a roller. Extruders employ high pressures, and usually at least one screw, to force a highly viscous melt out of a die orifice. The high pressures exerted on the melt cause the polymers therein to undergo stress. Bayer explains that the molecular orientation and compression of coating materials that is caused when the materials are forced through the die can cause ribbing or breaking (see Bayer, column 1, lines 40-48). Werenicz does not teach an extrusion method. Werenicz also does not teach highly viscous compositions that would require extrusion coating. Rather, Werenicz discloses that a slot nozzle can be used to apply the compositions disclosed therein. The equipment referred to in the Werenicz examples also includes a slot nozzle coater. Nothing in Werenicz teaches or suggests that the method disclosed therein causes molecular orientation or compression of the compositions disclosed therein. Moreover, Werenicz expressly discloses that the films disclosed therein are continuous and the films are continuous when coated on a substrate. Thus, the skilled artisan would have no reason to look to Bayer and further would have no reason to modify the method of Werenicz in light of Bayer. Applicant

submits, therefore, that a prima facie case of obviousness has not been established. Accordingly, the rejection of claim 88 under 35 U.S.C. § 103 over Werenicz in view of Mainstone and further in view of Bayer is unwarranted and must be withdrawn.

Claims 89-100 depend from claim 88 and are distinguishable under 35 U.S.C. § 103 over Werenicz in view of Mainstone and further in view of Bayer for at least the same reasons set forth above in distinguishing claim 88.

Claims 44 and 63 are distinguishable under 35 U.S.C. § 103 over Werenicz in view of Mainstone and further in view of Bayer for at least the same reasons set forth above in distinguishing claim 88.

Claim 6 stands rejected under 35 U.S.C. § 103 over U.S. Bayer, Jr. et al. (Bayer) in view of WO 96/40480 (Enlow).

Bayer discloses a method of applying a hot melt polymer on a substrate that includes extruding a composition in the form of a strip of adhesive onto an applicator roller.

Claim 6 is directed to method of coating, wherein a hot melt adhesive, which has been thermally made flowable, is provided in the form of a substantially continuous nonporous film without contact of the film with a substrate, the film is then disposed upon a release-coated substrate that includes a web, and then the film is transfer-coated onto a second substrate. Bayer does not teach a release-coated web. Instead, Bayer discloses coating a pressure sensitive adhesive composition onto a release-coated roller. The roller of Bayer transfers the coating to a second substrate. Bayer explains that two coating layer are transferred from a roller to a substrate while being sheared at the application interface to reduce the thickness of the two layers of coating material. The shearing and thinning at the substrate/application roller interface is an important aspect of the Bayer method and is important to achieve a thin coating.

Enlow discloses an extrusion coating process that can optionally include a release-coated web. Enlow does not teach or suggest that release-coated webs are suitable substitutes for release-coated rollers. Thus, the skilled artisan would have no reason to substitute the release coated web of Enlow for the release coated roller of Bayer. Moreover, nothing in Enlow teaches or suggests how the release coated web disclosed therein could be used in place of the release coated roller of Bayer --let alone

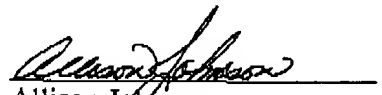
how to do so while maintaining the objective of Bayer, which is to achieve shearing and thinning at the application roller/substrate interface. Accordingly, the skilled artisan would have no reason to modify Bayer in the manner proposed in the Office action, and would have no reasonable expectation that doing so would achieve the objective of Bayer, i.e., shearing and thinning of the coating at the substrate/roller interface. Thus, a prima facie case of obviousness has not been made. Applicant submits, therefore, that the rejection of claim 6 under 35 U.S.C. § 103 is unwarranted and request that it be withdrawn.

The claims now pending in the application are in condition for allowance and such action is respectfully requested. The Examiner is invited to telephone the undersigned should a teleconference interview facilitate prosecution of this application.

Please charge any additional fees owing or credit any over payments made to Deposit Account No. 06-2241.

Respectfully submitted,

Date: April 4, 2003



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